

Education Units (CEU's) related to their field of "expertise" on an annual basis. All tutors receive Laubach training and are required to attend the Caprini Tutor/Mentor Connection Conference in Chicago, Illinois each fall. Language Arts tutors must participate in the Orton-Gillium training on Phonemic Awareness. Achievement Technologies also offers technical assistance and workshop opportunities to our instructional staff to ensure that we are kept abreast as their instructional content is updated and expanded to better serve the needs of the students. We, as an organization, are also hosts of the Star Math program and are a federally-funded, designated site of the Reading Is Fundamental (RIF) program, therefore we receive technical assistance from Renaissance Learning and support from the United States Department of Education.

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3. Provide evidence of the program's effectiveness in increasing student achievement. There are a number of reasons why our varied approach is beneficial to learners:

1. Both simple and complex learning outcomes can be measured and addressed.
2. Students receive practice in question formats found on many standardized tests.
3. Progress can be measured using both objective and subjective means.

This program helps learners advance through the cognitive progression of discrimination, concept formation, rule application and problem solving. It also addresses higher-order thinking skills such as investigation, deduction, and induction. Through the K-2 Learning Milestones and Cornerstone line of products, Achievement Technologies presents instruction to elementary and middle school students using interactions that both engage and instruct children in grades K-8. Activities cover the six competencies of Bloom's Taxonomy, prompting students to not only recall facts but think critically, understand inferences, and draw conclusions. Our educational approach ranges from direct instruction and evaluation to open-ended, non-evaluative exercises, with a concentration on multi-modal instruction, immediate and specific feedback, and application of concepts to real-world situations. Achievement Technologies has a tightly organized series of products designed for learners who are missing expected skills and concepts. Different types of scientifically based research were considered and required during program design and development. As a result, our program design allows instructors to do the following:

1. Diagnose the skill level status of students in academic areas.
2. Create an electronic IEP of the concepts and skills needed by each individual student.
3. Generate reports for students, teachers, parents and administrators describing each student's assignments and progress.

The purpose of these products is highly defined to cover content that is required by standardized tests and by state tests. As a result, the content of major tests is monitored on a regular basis. Vocabulary for children's programs came from studies by some of the best-known researchers in the field. The mathematics program was developed just as the National Council of Teachers of Mathematics (NCTM) published their standards. In addition, an advisory board was created that included district level mathematics supervisors and a college level mathematics educator who was also a member of the NCTM board. Scientifically based research from the academic field of special education was heavily used in developing the instructional model used throughout the country.

1. Establishment of clear, behavioral outcomes
2. Diagnostic and prescriptive teaching
3. Commitment to structured curriculum materials
4. Reinforcement of appropriate responses
5. Modeling and shaping of correct responses
6. Control of task difficulty
7. Small step instruction
8. Extensive practice
9. Regular testing for progress

Factors identified here are found in our instructional program. These instructional features have been adopted by behaviorally-oriented program developers who call their model "direct instruction." Gersten reviewed extensive evaluations of direct instruction in 1985.

"... studies indicated that direct instruction tends to produce higher academic gains. ... They also suggest that some of the more subtle principles of direct instruction – such as insistence on complete (rather than partial) mastery of each step in the learning process – are important." (Gersten, R. Direct Instruction with Special Education Students: A Review of Evaluation Research, The Journal of Special Education 19:41-58, 1985, Vaughn, S., R. Gersten, and D.J. Chard.) Much of this work has scientific basis written by B.F. Skinner, which is cited in thousands of papers dealing with the topic of "programmed instruction." Programmed instruction begins with the outcome expected and a detailed task analysis of what behaviors students must show in successive steps needed in moving from little or no knowledge to full knowledge. (Skinner, B.F. "The Science of Learning and the Art of Teaching." Harvard Educational Review, 24,86-97, 1954.)

The resolution is that the products produced by Achievement Technologies has been researched and tested in order to conform to the learning goals set by leaders in education.

In the Miami-Dade County area, approximately 80% of students reached the required competency levels and passed the tests needed. Before this intervention, 60% failed the Test of Basic Education.

Through a combination of dedicated and concerted educational efforts, in the Detroit's inner city area where 65% of the schools are listed as non-compliant according to the educational standards set by the Michigan Department of Education, over the past 4 years, Academic Enterprise, Incorporated has gained and maintained an astonishing 91.9 % achievement rate where students have, collectively, on average, increased their math and/or reading skills successfully.

Comparison of pre- and post-test scores reveal that 95.4% of Academic Enterprise clients have performed better in math, 89.2% in reading comprehension, and 91.3% in reading vocabulary skills. Also, according to our SPSS data results, 100% of our math students have had an increase in their grade equivalent (GE) score, 86.9% in comprehension, and finally 85.7% increased their GE score in vocabulary skills.